

US Application No. 08/853,183
Amdt. Response Date: April 5, 2007

Attorney Docket No.: 6296.204-US
Examiner: Kam, Chih Min

REMARKS

Upon entry of the present amendment, claims 32 – 36, 62 – 65 and 87 – 92 are pending. Claims 40 – 44 and 66 - 71 have been cancelled. Claims 32 and 35 have been amended to now recite the phrase "wherein said insulin analogue is administered intravenously and continuously infused to said patient as needed for at least 24 hours and the blood glucose level is maintained for 24 hours or more." Basis for these amendments can be found in the Specification as originally filed, and in particular at Paragraphs [0061], [0081], [0111], [0128], as well as original claim 10. New claims 87 – 92 have been added to more clearly define the present invention and claim additional aspects of the present invention. Specifically, new claims 87 and 88 are directed to methods of the invention where the patient being treated is fed with a standardized feeding schedule of either total parenteral, combined parenteral/enteral or full enteral feeding. Basis for this amendment can be found in the Specification as originally filed, and in particular, at Paragraphs [0062], [0064], [0111], and [0131]. New claims 89 – 92 are directed to methods of the invention where the insulin analogue or derivative is administered in a starting dose of either 1 U/h or 2U/h. Basis for the proposed amendment can be found in the Specification as originally filed, and in particular, at Paragraphs [0109], [0110], and [0129]. Applicants assert that this amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

THE 35 U.S.C. §103(A) REJECTIONS

The Examiner has rejected claims 32, 33, 40, 41 and 62-65 under 35 U.S.C. §103(a) as being unpatentable over Scott *et al.* ("Scott") in view of US Patent No. 5,618,913 ("Brange"), alleging that Scott teaches the use of a 24- hour infusion of saline (control) or a glucose potassium insulin infusion (16 U of human soluble insulin, 20 mmole of KCL in 500 ml 10% dextrose) at 100 ml/h, while Brange is cited as disclosing rapid-acting human insulin analogs such as Asp^{B28} human insulin. Thus, the Examiner has alleged that the combined references result in the claimed invention, and as such, the claimed invention was *prima facie* obvious.

In order to more clearly describe Applicants' invention and to expedite allowance of the present application, Applicants have amended claims 32 and 35 to now recite the phrase "wherein said insulin analogue is administered intravenously and continuously infused to said patient as needed for at least 24

US Application No. 09/853,193
Amdt. Response Date: April 5, 2007

Attorney Docket No.: 6298.204-US
Examiner: Kam, Chih Min

hours and the blood glucose level is maintained for 24 hours or more." Basis for these amendments can be found in the Specification as originally filed, and in particular at Paragraphs [0061], [0081], [0111], [0128], as well as original claim 10.

In contrast to the claims as amended, **Scott** discloses an infusion period of 24 hours. **Scott** does not disclose methods of maintaining a desired blood glucose level via *continuous infusion* of insulin (or any GKI). Furthermore, **Scott** does not disclose the use of any GKI for the maintenance of a normal blood glucose level for greater than 24 hours. *See e.g.* pg. 794, second column, which states "[t]he trial treatments were commenced by general ward nursing staff, who also monitored and maintained the infusions over the next 24 hours"; *see also*, pg. 797, second column, which states "[a] 24-hour infusion period was chosen to reflect existing evidence that neurons in the ischemic penumbra show evidence of cellular activity on positron emission tomography (PET) and MRI spectroscopy scanning up to and potentially beyond this period"; *see also* Table 2, which depicts mean plasma glucose and BM from the start time of the infusion period to the end point (0h to 24h); and *see also* Figure 2, which depicts mean blood pressure values during the infusion period (0h to 24 hrs). Thus, Applicants assert that neither **Scott** alone, nor in combination with **Brange**, teaches or suggests the claimed invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

The Examiner has also rejected claims 32, 34, 40, 42 and 62-65 under 35 U.S.C. §103(a) as being unpatentable over **Scott et al.** ("**Scott**") in view of US Patent No. 5,547,929 ("**Anderson**"), alleging that **Scott** teaches the use of a 24- hour infusion of saline (control) or a glucose potassium insulin infusion (16 U of human soluble insulin, 20 mmole of KCL in 500 ml 10% dextrose) at 100 ml/h, while **Anderson** is cited as disclosing monomeric insulin analogs such as Lys^{B28}, Pro^{B29} human insulin having a property of ultra rapid time action profile as compared to insulin. Thus, the Examiner has alleged that the combined references result in the claimed invention, and as such, the claimed invention was *prima facie* obvious.

As stated above, **Scott** does not disclose methods of maintaining a desired blood glucose level via *continuous infusion* of insulin (or any GKI). Furthermore, **Scott** does not disclose the use of any GKI for the maintenance of a normal blood glucose level for greater than 24 hours. Thus, in light of the claims as amended, Applicants assert that neither **Scott** alone, nor in combination with **Anderson**, teaches or suggests the claimed invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

US Application No. 09/853,193
Amdt. Response Date: April 5, 2007

Attorney Docket No.: 6296.204-US
Examiner: Kam, Chih Min

The Examiner has also rejected claims 35, 36, 43, 44 and 62-65 under 35 U.S.C. §103(a) as being unpatentable over Scott *et al.* ("Scott") in view of US Patent No. 5,750,497 ("Havelund"), alleging that Scott teaches the use of a 24-hour infusion of saline (control) or a glucose potassium insulin infusion (16 U of human soluble insulin, 20 mmole of KCL in 500 ml 10% dextrose) at 100 ml/h, while Havelund is cited as disclosing some active derivatives of insulin analogs, such as des-Thr^{B30} human insulin γ-Lys^{B29} tetradecanoyl having an improved property such as protracted profile of action and solubility at physiological pH as compared to insulin. Thus, the Examiner has alleged that the combined references result in the claimed invention, and as such, the claimed invention was *prima facie* obvious.

As stated above, Scott does not disclose methods of maintaining a desired blood glucose level via *continuous infusion* of insulin (or any GKI). Furthermore, Scott does not disclose the use of any GKI for the maintenance of a normal blood glucose level for greater than 24 hours. Thus, in light of the claims as amended, Applicants assert that neither Scott alone, nor in combination with Havelund, teaches or suggests the claimed invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

In light of the present amendment and the arguments above, Applicants believe that the present rejections under 35 U.S.C. §103(a) are now moot. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejections.

US Application No. 09/853,193
Amdt. Response Date: April 5, 2007

Attorney Docket No.: 6296.204-US
Examiner: Kam, Chih Min

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Commissioner is hereby authorized to charge any fees in connection with this application and to credit any overpayments to Deposit Account No. 14-1447. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

Date: April 5, 2007

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